UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 1 3 2013

REPLY TO THE ATTENTION OF:

Andrew Hall
Division of Air Pollution Control
Ohio Environmental Protection Agency
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

Dear Mr. Hall:

The U.S. Environmental Protection Agency has reviewed the draft Prevention of Significant Deterioration permit (PSD), permit number P0110840, for Oregon Clean Energy Center, located in Oregon, Ohio. The proposed project is for a new 799-megawatt combined cycle gas turbine power plant. The project will trigger PSD for several pollutants and will require Best Available Technology Review (BACT) for Greenhouse Gases (GHG), Nitrogen Oxides (NOx), Carbon Monoxide (CO), Volatile Organic Compounds (VOC), Sulfuric Acid (H_2SO_4), Particulate Matter less than 10 micrometers (PM_{10}), and Particulate Matter less than 2.5 micrometers ($PM_{2.5}$). The facility is proposing to take restrictions on the Sulfur Dioxide (SO_2) emissions to remain below the PSD SO_2 threshold. To ensure that the source meets Federal Clean Air Act requirements, that the permit will provide necessary information so that the basis of the permit decision is transparent and readily accessible to the public, and that the permit record provides adequate support for the decision, EPA has the following comments:

1. The draft permit's BACT analysis considers two different gas turbines and ultimately accepts either as BACT for this proposed facility. The gas turbines considered are the Mitsubishi 501 GAC and the Siemens SCC6-8000H.

    a. Please make sure that the permit is modified to show which gas turbine is ultimately selected.

    b. Please make sure that the final modified permit includes justification as to why the particular gas turbine was chosen as BACT taking into account that the Mitsubishi turbine will result in higher VOC, CO, and NO_x emissions while the Siemens turbine will result in higher $PM_{2.5}$, PM_{10}, H_2SO_4, and GHG emissions.

2. The compliance methods for the gas turbines on pages 71 – 81 of the draft permit all include language that says "If required" testing will be completed for several pollutants. Then, on page 83 there is language saying that emissions testing is required for these pollutants. To avoid confusion, please remove the "if required" language.

3. Similar to comment number 2 above, the emergency generator and the emergency fire pump have the same "if required" language regarding the emissions testing. Please revise the permit so that it is clear as to whether emissions testing is required. This includes the opacity limit for the auxiliary boiler – please revise the permit so it is clear as to what the compliance method will be and whether visible emissions checks are required.

4. We recommend that initial performance testing be conducted for the auxiliary boiler for CO, NO_x, VOC, PM, $PM_{2.5}$, PM_{10}, H_2SO_4, and CO_2, and SO_2 as is required for a similar auxiliary boiler in the PSD permit for St. Joseph Energy Center in Indiana.

5. The permit includes synthetic minor limits for SO_2, and page 25 of the draft permit has a condition which appears to say that the 0.03 lb/hr SO_2 emission limit will expire when/if OAC 3745-31-05(A)(3) is approved into the State Implementation Plan. Please assure that all the SO_2 emissions from the facility are accounted for and monitored to make sure the SO_2 emissions are below 40 tons per year on a 12-month rolling average.

6. The Permit Strategy Write-Up says the emergency generator will use ultra low sulfur diesel fuel (ULSD) as a fuel source. Please add this as a permit condition.

7. The BACT analysis for H_2SO_4 in the Permit Strategy Write-Up says that the turbines will utilize natural gas with a maximum sulfur content of 0.5 grains per 100 standard cubic feet as their only fuel to minimize H_2SO_4 emissions. Please add this as a permit condition.

8. Please confirm that the start up and shut down emissions are accounted for in the emission limits and the air dispersion modeling.

9. The Permit Strategy Write-Up says that the applicant submitted dispersion modeling results with the permit application to the Ohio Environmental Protection Agency (OEPA) and that the modeling package is being reviewed by the OEPA Central Office. If OEPA has not completed their review of the modeling results, the permit should not have been issued for public comment.

10. The Permit Strategy Write-Up indicates that the OEPA did not require the applicant to provide preconstruction monitoring data for $PM_{2.5}$. Instead, the OEPA relied on a demonstration that the source's impact was below the Significant Impact Level (SIL) and thus concludes that the source does not cause or contribute to a violation of the $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) or increments. Though this facility did not exceed the SIL, review for pre-construction monitoring consideration should be based on OEPA available representative monitoring data for the proposed facility air-shed. OEPA does have representative and quality controlled PM2.5 monitoring data within 10 miles of the facility that could be used; if the modeling exceeded the SIL, and thus satisfies the PM2.5 pre-construction monitoring requirement.

11. The tons-per-year potential emissions of NOx and VOCs are above the significant emission thresholds that define significant emissions of these pollutants as precursors for

$PM_{2.5}$ and ozone. As a result, the potential impact of the NOx emissions on the secondary formation of ambient concentrations of $PM_{2.5}$ and the VOC and NOx emissions impact on ozone concentrations should be addressed as part of the required impact analyses for the $PM_{2.5}$ and ozone NAAQS. While it may not be necessary or feasible to model the impacts of these precursors, their potential impacts on the $PM_{2.5}$ and ozone NAAQS should be addressed in the required analyses. Consultation with the modeling staff in Region 5 is recommended to help determine the appropriate level of analysis.

12. Make sure to include the emergency diesel generator and the emergency diesel fire pump in your PM2.5 modeling analysis.

We appreciate the opportunity to provide comments on this permit. If you have any questions, please feel free to contact Richard Angelbeck, of my staff, at (312) 886-9698.

Sincerely,

for

Genevieve Damico
Chief
Air Permits Section